App. Serial No. 10/527,946
Docket No.: NL 020846 US

In the Claims:

Please amend claim 3 as indicated below. This listing of claims replaces all prior versions.

1. (*Previously presented*) For generating a quadrature periodical output signal adjustable to frequencies in a relative wide range, a voltage controlled oscillator comprising a LC tank circuit coupled to a modulator means for controlling an oscillation frequency of the LC tank circuit in response to a control signal and coupled to an amplifier means via an adder, the adder providing feedback to the LC tank circuit.

2. (*Previously presented*) An oscillator as claimed in claim 1, wherein the modulator means comprises a series coupling of a buffer and a modulator.

3. (*Currently amended*) An oscillator as claimed in claim 1, wherein the amplifier means comprise a series coupling of ~~an another~~ a buffer and an amplifier.

4. (*Previously presented*) An oscillator as claimed in claim 3, wherein the amplifier is a transconductance amplifier.

5. (*Previously presented*) An oscillator as claimed in claim 1, wherein the amplifier means is a transconductance amplifier , the modulator means is a Gilbert cell modulator and the adder is a node.

6. (*Previously presented*) A phase locked loop comprising an oscillator as claimed in claim 1 for use in a large tuning TV tuner.

7. (*Previously presented*) For use with an LC-type tank circuit having an inductive current path and a capacitive current path, a method for generating a quadrature periodical output signal adjustable to frequencies in a relative wide range, the method comprising:

from a first high-impedance node, generating a first buffered signal indicative of a level of current through the inductive path of the LC-type tank circuit;

from a second high-impedance node, generating a second buffered signal indicative of a level of current through the capacitive path of the LC-type tank circuit;

in response to a control signal, quadrature modulating the first buffered signal and producing a modulated signal therefrom;

amplifying the second buffered signal and producing an amplified signal therefrom; and

adding the modulated signal and the amplified signal and, in response thereto, providing a feedback signal to the LC tank circuit.

8. (*Previously presented*) The method of claim 7, wherein the step of amplifying uses a transconductance amplifier.

9. (*Previously presented*) The method of claim 7, further including the step of using a phase-locked-loop circuit to control the periodic output signal.

10. (*Previously presented*) The method of claim 9, wherein the periodic output signal is used in a TV tuner.

11. (*Previously presented*) For use with an LC-type tank circuit having an inductive current path and a capacitive current path, an arrangement for generating a quadrature periodical output signal adjustable to frequencies in a relative wide range, the arrangement comprising:

first high-impedance node means for generating a first buffered signal indicative of a level of current through the inductive path of the LC-type tank circuit;

second high-impedance node means for generating a second buffered signal indicative of a level of current through the capacitive path of the LC-type tank circuit;

means, responsive to a control signal, for quadrature modulating the first buffered signal and producing a modulated signal therefrom;

means for amplifying the second buffered signal and producing an amplified signal therefrom; and

means for adding the modulated signal and the amplified signal and, in response thereto, providing a feedback signal to the LC tank circuit.

12. (*Previously presented*) For use with an LC-type tank circuit having an inductive current path and a capacitive current path, an arrangement for generating a quadrature periodical output signal adjustable to frequencies in a relative wide range, the arrangement comprising:

first high-impedance node circuit to generate a first buffered signal indicative of a level of current through the inductive path of the LC-type tank circuit;

second high-impedance node circuit to generate a second buffered signal indicative of a level of current through the capacitive path of the LC-type tank circuit;

a quadrature modulator to, in response to a control signal, quadrature modulate the first buffered signal and produce a modulated signal therefrom;

an amplifier to amplify the second buffered signal, thereby producing an amplified signal; and

a circuit to add the modulated signal and the amplified signal and, in response thereto, and to provide a feedback signal to the LC tank circuit.

13. (*Previously presented*) The arrangement of claim 12, wherein the amplifier is a transconductance amplifier.

14. (*Previously presented*) The arrangement of claim 12, further including a phase-locked-loop circuit to control the periodic output signal.

15. (*Previously presented*) The arrangement of claim 14, further including a TV tuner to facilitate tuning.